DERWENT-ACC-NO: 1999-311370
DERWENT-WEEK: 199926

TITLE: Method for logging, identification, tracking, and chemical management in a chemical synthesis system (CSS) - by applying an electronic identification tag to each container as it passed through the system

PATENT-ASSIGNEE: ANONYMOUS[ANON]

PRIORITY-DATA: 1999RD-0421048 (April 20, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
RD 421048 A	May 10, 1999	N/A	000	B01J 000/00

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
RD 421048A	N/A	1999RD-0421048	April 20, 1999

INT-CL (IPC): B01J000/00

ABSTRACTED-PUB-NO: RD 421048A

BASIC-ABSTRACT: This development incorporates electronic identification tags on each chemical container. The identification (II) tags could be self-powered or passive transponder type. Electro-optical techniques, "Button Memory" (direct contact reader powered memory), and Radio Frequency Identification, a non-contact reader powered memory), and Radio Frequency Identification, a non-contact reader powered memory, are some of the methods that can be used. The ID tag with each container individualises the solvents, reagents, intermediates and finished compounds within the CSS. The ID tag can be applied to the container in several ways. It can be placed in the container with the chemical, or mechanically attached to the container, or be an integral part of the container. The tag can be read at a reader station located within the CSS. Another method would incorporate the reader into the robotic arm that, from time to time, would transport the chemical container from point to point in the CSS. ID tags with a Read Only Memory (ROM) provide only a serial number; Write Once Read Many (WORM) allows data to be written a single time to a fixed memory size; Read/Write (R/W) memory is the most capable as it allows data to be written, erased, and rewritten.

USE - Tracking compounds within chemical synthesis systems.

ADVANTAGE - ID tags can store much more information than bar codes. ID tag

read rates are much faster than bar code. ID tags can be encapsulated to be chemically inert. The risk of mistaking a chemical container can be minimised as the sensing system can check every container every time. A complete and accurate log of every container transport and access can be maintained. For compounds that require special procedures, their exact weight or volume can be maintained on the tag. If a reaction calls for a weight or volume greater than that which is in the vial, the CSS can alert the operator or locate another vial of the same chemical if available. Chain of custody with ID labelling is excellent. Reliability is enhanced through frequent reads by the robotic arm. If a container was placed in the wrong location, the robot would detect it. Safety is enhanced by programming the CSS with a set of rules that would not permit the combination of certain compounds. Operator error is eliminated.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:
METHOD LOG IDENTIFY TRACK CHEMICAL MANAGEMENT CHEMICAL SYNTHESIS SYSTEM APPLY
ELECTRONIC IDENTIFY TAG CONTAINER PASS THROUGH SYSTEM

DERWENT-CLASS: J04 T04 T05

CPI-CODES: J04-X;

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1999-091853
Non-CPI Secondary Accession Numbers: N1999-232418

Mellerson, Kendra

From: Gakh, Yelena
Sent: Tuesday, December 03, 2002 11:52 AM
To: STIC-EIC1700
Subject: 09737185

Dear Kendra,

Is it possible to get this today?

ACCESSION NUMBER: 1999:359051 CAPLUS
DOCUMENT NUMBER: 131:6957
TITLE: Method for logging, identification, tracking, and chemical management in a chemical synthesis system (CSS)
AUTHOR(S): Anon.
CORPORATE SOURCE: UK
SOURCE: Research Disclosure (1999), 421(May), P628 (No. 42148)
CODEN: RSDSBB; ISSN: 0374-4353
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PTO

T201.P7R

Thanks,

Yelena

Yelena G. Gakh, Ph.D.

Patent Examiner
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42148

Method For Logging, Identification, Tracking, And Chemical Management In A Chemical Synthesis System (CSS)

This development incorporates electronic identification tags on each chemical container. The identification (ID) tags could be self-powered or passive transponder type. Electro-optical techniques, "Button Memory" (direct contact reader powered memory), and Radio Frequency Identification, a non-contact reader powered memory, are some of the methods that can be used.

By adding the ID tag to each chemical container, a powerful and reliable synthesis system can be achieved that provides complete and accurate chemical identification, logging, tracking and chemical management. The ID tag with each container individualizes the solvents, reagents, intermediates and finished compounds within the CSS. The ID tag can be applied to the container in several ways. It can be placed in the container with the chemical, or mechanically attached to the container, or be an integral part of the container. The tag can be read at a reader station located within the CSS. Another method would incorporate the reader into the robotic arm that, from time to time, would transport the chemical container from point to point in the CSS. This would eliminate a separate reader station and would save time.

ID tags with a Read Only Memory (ROM) provide only a serial number; Write Once Read Many (WORM) allows data to be written a single time to a fixed memory size; Read/Write (R/W) memory is the most capable as it allows data to be written, erased, and rewritten.

Advantages: ID tags can store much more information than bar codes (chemical name, weight, volume, etc.). ID tag read rates are much faster than bar code. ID tags can be encapsulated to be chemically inert. The risk of mistaking a chemical container can be minimized since a sensing system can "interrogate" every container every time. A complete and accurate log of every container transport and access can be maintained. For compounds that require special procedures, their exact weight or volume can be maintained on the tag. If a reaction calls for a weight or volume greater than that which is in the vial, the CSS can alert the operator or locate another vial of the same chemical if available. Chain of custody with ID labeling is excellent. Reliability is enhanced through frequent reads by the robotic arm. If a container was placed in the wrong location, the robot would detect it. Safety is enhanced by programming the CSS with a set of rules that would not permit the combination of certain chemicals (Li & water, for example). Tampering with the CSS can be detected. Memory retention of current ID tags is 10 years. Maintaining date, time weight, volume (and other pertinent data) may permit exotic/expensive reagents to be moved among several CSS's. A CSS equipped with special identifiers for each reagent or solvent can correct for operator error. Inventory mapping by interrogation of the entire array completely eliminates operator error in training the robot where the chemicals are located within the CSS.

Disclosed anonymously
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42149

Thin Film Constrained Layer Damping Of Track Shoes

This invention relates generally to a track shoe on a track type tractor and, more particularly, to controlling track shoe noise using constrained layer damping of the track shoe.

Currently, track shoe noise is reduced by devices to keep proper tension on the track shoe and/or with constrained layer damping. Both methods have not shown great success. The reason for the limited success is found primarily in the thickness dimension chosen for the damping layer within the constrained layer composite.

Disclosed is a method and apparatus for controlling track shoe noise with thin film constrained layer damping. It has been shown that the damping layer thickness is inversely proportional to the damping performance of the composite structure. That is, as the damping layer thickness is reduced, the damping performance increases.

The performance increase is due to two fundamental phenomena. First is the amplification of shear strain within the damping layer. The second is the shift from coupling the flexural strengths of the constrained layer and the damping part (track shoe) to coupling the tensile and flexural strengths of both parts. By using a thin film damping layer, one that is less than or equal to 0.010 inches, the vibration damping of the track shoe can be greatly increased and thus greatly reducing the resonant sound emissions of the track system.

Preferably, the thin film is constrained on the back of the track shoe using a steel plate of thickness no greater than 0.125 inches. The constrained steel plate dimensions are chosen such that at least 75% of the track shoe's length and width is covered, while the constraining plate itself is centered with respect to the track shoe. For added performance, the constraining plate should be through bolted to the track link using the same fasteners retaining the track shoe. Any flexible adhesive with appropriate temperature dependant properties could be utilized in the thin damping layer. To broaden the temperature range of optimum damping performance, multiple thin film layers may be used; each with a different flexible adhesive with different temperature based properties.

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